

In the Claims:

Please cancel Claims 2, 4, 7, 9, 12, 14, 17, 19, 23, and 25.

Kindly amend the claims as indicated.

1. (Currently Amended) A method for queuing packets for transmission comprising:

assigning each packet a first value;
dynamically assigning each said packet a second value; and
queuing each said packet for transmission using said first and second value,

wherein said first value comprises a sequence number S having a value of $S = (W + (T * D) \gg \text{scale}) \% N$, wherein W is the sequence number of the last packet transmitted, T is a service factor, D is the size of each said packet, scale is a divisor for (T*D) factor such that S does not wrap around too quickly, and N is the range of sequence numbers.

2. (Canceled)

3. (Currently Amended) The method of claim 2-1, wherein said second value comprises a real sequence number RS having a value of:

if $(S < W)$, then $RS = (S + N)$;

else $RS = S$.

4. (Canceled)

5. (Original) The method of claim 3, wherein RS is dynamically computed.

6. (Currently Amended) An apparatus for queuing packets for transmission comprising:

means for assigning each packet a first value;
means for dynamically assigning each said packet a second value; and

means for queuing each said packet for transmission using said first and said second value,

wherein said first value comprises a sequence number S having a value of $S = (W + (T * D) \gg \text{scale}) \% N$, wherein W is the sequence number of the last packet transmitted, T is a service factor, D is the size of each said packet, scale is a divisor for (T*D) factor such that S does not wrap around too quickly, and N is the range of sequence numbers.

7. (Canceled)

8. (Currently Amended) The apparatus of claim ~~7~~6, wherein said second value comprises a real sequence number RS having a value of:

if $(S < W)$, then $RS = (S + N)$;

else $RS = S$.

9. (Canceled)

10. (Original) The apparatus of claim 8, further including means for dynamically computing RS.

11. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for queuing packets for transmission comprising:

assigning each packet a first value;

dynamically assigning each said packet a second value; and

queuing each said packet for transmission using said first and second value,

wherein said first value comprises a sequence number S having a value of $S = (W + (T * D) \gg \text{scale}) \% N$, wherein W is the sequence number of the last packet transmitted, T is a service factor, D is the size of each said packet, scale is a divisor for (T*D) factor such that S does not wrap around too quickly, and N is the range of sequence numbers.

12. (Canceled)

13. (Currently Amended) The program storage device of claim ~~12~~11, wherein said second value comprises a real sequence number RS having a value of:
if $(S < W)$, then $RS = (S + N)$;

else $RS = S$.

14. (Canceled)

15. (Original) The program storage device of claim 13, wherein RS is dynamically computed.

16. (Currently Amended) A router comprising:
a processor configured to assign each packet a first value;
dynamically assign each said packet a second value; and
queue each said packet for transmission using said first and second value,
wherein said first value comprises a sequence number S having a value of $S = (W + (T * D) \gg \text{scale}) \% N$, wherein W is the sequence number of the last packet transmitted, T is a service factor, D is the size of each said packet, scale is a divisor for (T*D) factor such that S does not wrap around too quickly, and N is the range of sequence numbers.

17. (Canceled)

18. (Currently Amended) The router of claim ~~17~~16, wherein said second value comprises a real sequence number RS having a value of:

if $(S < W)$, then $RS = (S + N)$;

else $RS = S$.

19. (Canceled)

20. (Original) The router of claim 18, wherein RS is dynamically computed.

21. (Currently Amended) A machine-readable medium including a packet to be routed, said packet further including at least a first value and a second value, wherein each said first and second values are used for queuing, wherein said first value comprises a sequence number S having a value of $S = (W + (T * D) \gg \text{scale}) \% N$, wherein W is the sequence number of the last packet transmitted, T is a service factor, D is the size of each said packet, scale is a divisor for $(T * D)$ factor such that S does not wrap around too quickly, and N is the range of sequence numbers.

22. (Currently Amended) The machine-readable medium of claim 21, wherein said second value is dynamically assigned.

23. (Canceled)

24. (Currently Amended) The ~~router~~ machine-readable medium of claim ~~23~~22, wherein said second value comprises a real sequence number RS having a value of:

if $(S < W)$, then $RS = (S + N)$;

else $RS = S$.

25. (Canceled)